

DOCUMENT RESUME

ED 064 229

SP 005 660

AUTHOR Costin, Frank
TITLE Personality Correlates of Teacher-Student Behavior in the College Classroom. Final Report.
INSTITUTION Illinois Univ., Urbana. Dept. of Psychology.
SPONS AGENCY Office of Education (DHEW), Washington, D.C. Bureau of Educational Research and Development.
BUREAU NO BR-0-0555
PUB DATE Jan 72
GRANT OEG-5-70-0031(508)
NOTE 61p.

EDRS PRICE MF-\$0.65 HC-\$3.29
DESCRIPTORS Character Recognition; *Individual Characteristics; *Perception; *Personality Assessment; *Student Behavior; *Teacher Behavior; Teacher Evaluation

ABSTRACT

This project investigated the relationship of classroom behavior to students' personality traits, students' perceptions of teachers' traits, teachers' self-described traits, and the discrepancies between students' preferences for teacher traits and their observation of them. Teachers were graduate assistants conducting discussion sections in social-behavioral science courses. At the beginning of a semester, 55 teachers and their students described themselves on the Gordon Personal Profile; at the beginning of the next semester, 51 teachers described themselves on the Gordon Personal Inventory, while students used the instrument to indicate the traits they preferred in their teacher. Major findings were that 1) classroom behavior was more closely related to students' perceptions of teacher personality than to teachers' or students' self-described traits; 2) teacher skill, teacher support, and student involvement were correlated positively, while negative affect in the classroom was correlated negatively, with students' perceptions of teachers' vigor, original thinking, and personal relations; and 3) the greater the discrepancy between students' preference for and observation of teacher traits, the less favorably they rated teacher skill, and the more negative affect they reported. Implications for professional training and improvement of college teaching were described. Appendixes, tables and a 26-item bibliography are included. (Author/MJM)

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Final Report

Project No. 00555

Grant No. OEG-5-70-0031 (508)

**Personality Correlates of Teacher-Student
Behavior in the College Classroom**

Frank Costin

**University of Illinois at Urbana-Champaign
731 Psychology Building**

**Champaign, Illinois
61820**

January 1972

The research reported herein was performed pursuant to a grant with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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SP 005-660

Preface

Thanks are due to Joseph E. Grush and Bryce Kaye, research assistants in the Department of Psychology, University of Illinois, for their help in gathering and processing the data for this project. I also wish to thank Professor Jerry S. Wiggins of the Department of Psychology, and Professor J. Thomas Hastings, Department of Educational Psychology, University of Illinois, for serving as consultants.

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Table of Contents

	Page
Abstract.....	ii
Preface.....	iv
List of Tables.....	vi
I. Introduction.....	1
II. Procedures.....	6
III. Results.....	16
IV. Summary: Objectives, Procedures, and Results.....	31
V. Discussion and Conclusions.....	38
References.....	46
Appendix	
Briefing Information. Beginning of First and Second Semester.....	49
Adapted Directions for <u>Gordon Personal Profile</u> . Students and Teachers - Beginning of First Semester...	50
Briefing Information. End of First and Second Semester.....	51
<u>Costin Survey of Classroom Behavior</u> . Skill Factor from <u>Michigan Rating Form</u>	52
Adapted Directions for <u>Gordon Personal Profile</u> . End of First Semester.....	54
Adapted Directions for <u>Gordon Personal Inventory</u> . Beginning of Second Semester.....	55
Adapted Directions for <u>Gordon Personal Inventory</u> . Teachers - Beginning of Second Semester.....	56
Adapted Directions for <u>Gordon Personal Inventory</u> . End of Second Semester.....	57

List of Tables

	Page
1. Students' Perceptions of Classroom Behavior.....	14
2. Students' and Teachers' Perceptions of Personality Traits, and Students' Preferences for Teacher traits.....	15
3. Correlations (r 's) between Students' Perceptions of Classroom Behavior and their Perceptions of Teachers' Personality Traits.....	17
4. Correlations (r 's) between Students' Perceptions of Classroom Behavior and their Perceptions of Own Personality Traits.....	18
5. Correlations (r 's) between Students' Perceptions of Classroom Behavior and Teachers' Perceptions of Own Personality Traits.....	21
6. Comparison of Correlations (r 's) between Students' Perceptions of Classroom Behavior, their Percep- tions of Teachers' Personality Traits, and their Own Traits.....	22
7. Comparison of Correlations between Students' Per- ceptions of Classroom Behavior, their Perceptions of Teachers' Personality Traits, and Teachers' Perceptions of Own Traits.....	25
8. Comparison of Correlations (r 's) between Students' Perceptions of Classroom Behavior, their Per- ceptions of Own Personality Traits, and Teachers' Perceptions of Own Traits.....	27
9. Students' Perceptions of Classroom Behavior Versus Discrepancies between Personality Traits they Pre- ferred and Personality Traits they Observed in Teachers.....	29

I. Introduction

In a comprehensive study dealing with the evaluation of college teaching, Guthrie (1954) found that faculty members stressed "scholarly attainments" when describing "effective teachers", while students emphasized "personal qualities." Some years later Knapp (1962) came to a similar conclusion: in rating teaching effectiveness, students were guided by images of their teachers' "personal-social" characteristics.

However, neither Guthrie's study nor the research reviewed by Knapp delineated relationships between students' ratings and teachers' personality traits with sufficient precision to permit clear and useful interpretation, nor did either reveal how students' judgments of teaching effectiveness were related to their own personality characteristics. Furthermore, the few studies of college teaching which have attempted to describe such relationships in a quantitatively meaningful fashion were narrow in scope; for example, they usually considered only the teachers' personality traits or the students' traits, and as a rule confined their inquiry to a single course, typically introductory psychology or educational psychology.

The purpose of the present study was to help remedy the lack of knowledge concerning personality correlates of student and teacher behavior in the college classroom. It considered not only teachers' and students' self-perceived personality traits, but also students' perceptions of teachers' traits, and the kinds of traits they preferred in their teachers. Furthermore, the investigation included teachers and students from a variety of courses in the social-behavioral sciences: anthropology, economics, education, history, political science, psychology and sociology. It was anticipated that the findings would not only contribute to knowledge concerning the psychology of personality, but also would be of practical value to college classroom teachers, and to educators concerned with preparing them for such roles.

Before stating the specific questions posed by this study, and the rationale for them, a brief review of previous investigations will provide the necessary background.¹

¹This material has been incorporated into a review of research on the reliability and validity of student ratings of college teaching (Costin, Greenough, and Menges, 1971).

Previous Research

After reviewing over 150 articles on the personality characteristics of teachers, Getzels and Jackson (1963) concluded that "Despite the critical importance of the problem and a half-century of prodigious research effort, very little is known for certain about the nature and measurement of teacher personality, or about the relation between teacher personality and teacher effectiveness. The regrettable fact is that many of the studies so far have not produced significant results." (p. 574).

Getzels and Jackson's conclusion takes on additional meaning when one considers that the research which they reviewed was confined almost entirely to elementary and secondary school teaching. Indeed, one study (Bendig, 1955) was cited as being particularly "worth noting because it deals with a relatively unstudied population--college teachers." (p. 549). Sixteen introductory psychology instructors (15 men and one woman) described their personality characteristics on the Guilford-Zimmerman Temperament Survey. The trait scores were then correlated with student ratings on the Purdue Rating Scale for Instructors. No significant relationships were detected.

Prior to Bendig's study, sporadic attempts had been made to discover the personality characteristics of "effective" college teachers; however, these investigations were based on vaguely conceived descriptions of personality traits, some of them anecdotal. Nor was there any systematic effort to show how such traits were related to actual classroom behavior. For example, Clinton (1930) reported that the four characteristics of an "ideal college professor" which students most frequently mentioned were: "interest in students", "fairness", "pleasing personality", and "humor". Kelly's (1929) survey of 187 church-affiliated colleges concluded that "great teachers" were "sympathetic, helpful, sincere, and enthusiastic."

About ten years later, Bousefield (1940) discovered that the most frequently mentioned attributes of good college teachers were "fairness", "interest in students", and "helpfulness". In the same vein, Bogardus (1946) found that the most desirable personal characteristics mentioned by graduate students and alumni concerning their former teachers were "fairness", "enthusiasm", and "humor". Knapp and Goodrich (1952) also inquired of former students concerning the outstanding characteristics of their most effective teachers (defined as those who motivated them to follow in their field); he found that "warmth" was mentioned most frequently.

In a broader study, Riley, Ryan, and Lifschitz (1950) asked college students to state "ideal" factors important in teaching, as well as factors which played a part in the actual teaching they experienced.

"Personality" was frequently mentioned, both as an "ideal" factor for effective teaching, and as a characteristic of their best teachers; however, what these students meant by "personality" was vague, since they had been asked to rate the "personality" of their teachers on a scale which included such phrases as: "attractive personality, would like to know him," "satisfactory personality", "rather unattractive personality", and "not the kind of person you care for."

Several years later, Maslow and Zimmerman (1956) asked students to make ratings of their teachers' "ability" and "personality" on a scale ranging from "very good" to "very poor." They found that the correlation between students' ratings of "good teaching" and "good personality" was .76. Unfortunately, "personality" and "ability" were so globally defined that it is difficult to interpret the results meaningfully.

In the 1960's, several studies appeared which used more precise methods of measurement. Sorey (1968) concentrated on the 15 most superior and the 15 most inferior teachers out of an original group of 50 college teachers. He found no differences in personality traits on the Guilford-Zimmerman Temperament Survey. (More meaningful results might have been obtained if correlational measures involving all 50 faculty members had been used.)

Isaacson, McKeachie, and Milholland (1963) studied the correlations between a variety of teacher personality variables and student ratings of instruction. The teachers were all "teaching fellows" in introductory psychology at the University of Michigan. Seventeen teachers were involved the first year, and 16 the second year. Personality characteristics of teachers were rated by means of peer group nominations, self-reports on adjective check lists, and self-reports on Cattell's 16 PF. The most consistently high positive relationship, appearing across four consecutive semesters, was between the teachers' "culture" (artistic, polished, imaginative, effectively intelligent) and students' ratings of the teachers' "overall effectiveness." This "overall effectiveness" also correlated positively with the teachers' "enthusiasm." In addition, ratings of "student-teacher rapport" in the classroom were positively correlated with the teachers' "urgency".

Yonge and Sassenrath (1968) examined the relationships between students' self-reports of their personality traits and their ratings of teaching performance in an educational psychology course. The classes of three instructors were used, each of whom employed a distinctly different teaching approach. The investigators found that correlates (students' personality traits versus ratings of performance) were not necessarily the same from one instructor to another;

they concluded that the ratings of instructors had different meanings for the different teachers because of the different teaching methods that were used.

It should be emphasized that the study by Isaacson et. al. (1963) did not consider students' personality traits, and that all judgments of teacher personality were made by the teacher himself or his peers. It should also be noted that Yonge and Sassenrath's study (1968) did deal with students' personality characteristics but not with those of teachers.

Specific Objectives of Study: Questions Asked

This study sought answers to the following questions:

1. What is the relationship between students' perceptions of classroom behavior and their perceptions of teachers' personality traits?
2. What is the relationship between students' perceptions of classroom behavior and their own personality traits?
3. What is the relationship between students' perceptions of classroom behavior and teachers' perceptions of their own personality traits?
4. The final question deals with discrepancies between the personality traits students prefer in their teachers and the traits they actually observe. What is the relationship between such discrepancies and students' perceptions of classroom behavior?

Rationale for Questions

Answers to these questions have potential value both for practioners and for researchers. Practioners may use the results to understand more clearly their roles in the college classroom, especially in situations demanding skill in interpersonal relations and the ability to promote a positive emotional atmosphere conducive to effective learning. Thus the findings should be of special importance to teachers whose modus operandi lies in discussion rather than in lecturing.

The results should also be of value as a guide for future inquiries which can extend the questions asked here into other subject areas and other educational institutions. In addition, Question 4 should be of special theoretical interest to the researcher concerned with concepts of "cognitive consistency," and their application to interpersonal perceptions in the college classroom. In his review of cognitive consistency models, Steiner (1968) pointed out that while different theories emphasize different kinds of expected co-occurrences all suggest that "disconfirmation of critical expectations constitutes aversive stimulation." (p. 641). Question 4 is derived from such theories, but deals with preferences instead of expectancies: If students' preferences for certain kinds of personality traits are not confirmed by their actual observations of their teachers' traits (i.e. do not correspond), will they then react aversively, viewing classroom behavior less favorably than if their preferences are confirmed?

To answer this question, two variables of classroom behavior were selected for analysis: teacher skill and negative affect. These were used because one would generally expect students to agree that the first kind of behavior was "desirable" and the second "undesirable." The other dimensions included in the previous questions -- student involvement, teacher support, and teacher control -- were considered less relevant in this respect, since students' opinions as to whether these kinds of behavior are "desirable" or "undesirable" probably vary considerably more than do their opinions concerning the desirability of "skill" and the undesirability of "negative affect."

II. Procedures

Subjects

The teachers in this study were University of Illinois graduate assistants; the courses involved were anthropology, economics, education, history, political science, psychology and sociology. Lectures were presented by senior faculty members; the teaching assistants were responsible for conducting discussion sections. The courses were offered each semester, and were chosen not only by students who wished to major in the subject, but even more frequently by those who needed to fulfill general education requirements. Taken as a whole, the students in these courses represented a broad spectrum of the campus population.

The study was carried out for two consecutive semesters during the same academic year. Fifty-five teachers (34 men and 21 women) participated during the first semester, and 51 teachers (41 men and 10 women) during the second semester. Thirty-two of this second semester group (29 men and 3 women) were not involved in the study the previous semester. This change occurred mainly because many teachers were reluctant to relinquish class time for two consecutive semesters, although all were willing to cooperate for a single semester.

Since some teachers were responsible for more discussion sections than others were (depending on the contractual terms of the appointment, student enrollment in the course, and departmental policy), the following procedure was used each semester to select the sections to be included in the study: If a teacher conducted three or more sections (as most teachers did), two were chosen randomly; if a teacher was responsible for only two sections, both were used; in addition, a few teachers were included each semester who had only one section. On the average, there were 25 students in a section the first semester, and 28 the second semester.

Instruments and Collection of Data

First Semester. During the first two weeks of the semester, students and teachers completed the Gordon Personal Profile, a forced-choice test employing behaviorally stated items. (Gordon, 1963a; Buros, 1970, pp. 1034-1037). The Profile measures four dimensions of personality: ascendancy, responsibility, emotional stability, and sociability. Gordon (1963a, p. 3) describes them as follows:

Ascendancy. Those individuals who are verbally ascendant, who adopt an active role in the group, who are self-assured and assertive in relationships with others, and who tend to make independent decisions, score high on this Scale. Those who play a passive role in the group, who listen rather than talk, who lack self-confidence, who let others take the lead, and who tend to be overly dependent on others for advice, normally make low scores.

Responsibility. Individuals who are able to stick to any job assigned them, who are persevering and determined, and who can be relied on, score high on this Scale. Individuals who are unable to stick to tasks that do not interest them, and who tend to be flighty or irresponsible, usually make low scores.

Emotional Stability. High scores on this Scale are generally made by individuals who are well-balanced, emotionally stable, and relatively free from anxieties and nervous tension. Low scores are associated with excessive anxiety, hypersensitivity, nervousness, and low frustration tolerance. Generally, a very low score reflects poor emotional balance.

Sociability. High scores are made by individuals who like to be with and work with people, and who are gregarious and sociable. Low scores reflect a lack of gregariousness, a general restriction in social contacts, and, in the extreme, an actual avoidance of social relationships.

At the end of the course, students indicated on a questionnaire the frequency with which various kinds of classroom behavior had occurred during the semester. These responses were scored on a 5-point scale, from "almost always occurred" (5) to "almost never occurred" (1).

Five of the items in the questionnaire were from the Skill Factor of the Michigan Rating Form (Isaacson, et. al. 1964). The remaining 20 items were from the Survey of Classroom Behavior (Costin, 1971), which measured these four factors: (a) Student Involvement, (b) Teacher Support, (c) Negative Affect, and (d) Teacher Control.

All 25 items are listed below according to the factors they measured; they appeared in a scrambled order in the questionnaire itself. (See Appendix).

Teacher Skill

The teacher put material across in an interesting way.

The teacher stimulated the intellectual curiosity of students.

The teacher explained clearly and explanations were to the point.

The teacher was skillful in observing student reactions.

How would you rate your discussion section teacher in general (all-around) ability? [Response options for this item ranged from "an outstanding and stimulating teacher" (5) to "a poor and inadequate instructor" (1)].

Student Involvement

Students volunteered knowledge, opinions, or personal experiences.

Students interacted with each other.

There was interaction between students and teacher.

Students talked more than the teacher.

Direction of discussion was controlled by the students.

Teacher Support

The teacher encouraged discussion of students' erroneous statements as a way of correcting them.

The teacher asked students to help determine content of discussion.

The teacher asked students to help determine objectives of discussion.

The teacher praised students' behavior.

The teacher encouraged students to express their knowledge, opinions, or personal experiences.

The teacher asked students to help determine how their achievement would be evaluated.

The teacher asked open-ended questions.

Negative Affect

Students failed to laugh, joke, smile or show other signs of humor.

The teacher corrected or rejected students' statements without further discussion.

The teacher made it clear that students would have little choice in how their achievement would be evaluated.

Students failed to ask teacher for information, opinions, or personal experience.

Teacher Control

The teacher defined the objectives of discussion.

Direction of discussion was controlled by the teacher.

The teacher defined the content of discussion.

The teacher asked specific, drill-type questions.

In a previous study involving the Teacher Skill factor, Costin (1966) found a stability coefficient of .84 for student ratings of teaching assistants in an introductory psychology course, and a mean r of .87 for ratings in four other courses (humanities, physical science, biological science, and social science). His investigation of the other four factors (Costin, 1971) revealed the following stability coefficients for student ratings of teaching assistants in psychology and political science courses: Student Involvement, .74; Teacher Support, .77; Negative Affect, .72; Teacher Control, .67. Intercorrelations of factor scores for these ratings ranged from .32 (Student Involvement vs. Teacher Support) to .01 (Negative Affect vs. Teacher Control).

After recording their observations of classroom behavior, students were again asked to complete the Personal Profile; this time, however, instead of describing their own personality traits, they used the instrument to describe their teachers' traits. (Because of the "third person" behavioral format, the items of the Profile lent themselves especially well to this kind of task. See Appendix for complete directions).

Second Semester. During the first two weeks of the semester the Gordon Personal Inventory, a companion test to the Profile, was administered to the discussion section teachers and to their students. (Gordon, 1963b; Buros, 1970, pp. 1032-1034). The teachers described their own personality traits, while the students used the items to indicate the traits they would prefer in their teacher. (See Appendix for directions).

The Inventory, like the Profile, employs a forced-choice format of behaviorally stated items, but measures a different set of four personality traits. Gordon (1963b, p. 3) describes them as follows:

Cautiousness. Individuals who are highly cautious, who consider matters very carefully before making decisions, and do not like to take chances or run risks, score high on this Scale. Those who are impulsive, act on the spur of the moment, make hurried or snap decisions, enjoy taking chances, and seek excitement, score low on this Scale.

Original Thinking. High scoring individuals like to work on difficult problems, are intellectually curious, enjoy thought-provoking questions and discussions, and like to think about new ideas. Low scoring individuals dislike working on difficult or complicated problems, do not care about acquiring knowledge, and are not interested in thought-provoking questions or discussions.

Personal Relations. High scores are made by those individuals who have great faith and trust in people, and are tolerant, patient, and understanding. Low scores reflect a lack of trust or confidence in people, and a tendency to be critical of others and to become annoyed or irritated by what others do.

Vigor. High scores on this Scale characterize individuals who are vigorous and energetic, who like to work and move rapidly, and who are able to accomplish more than the average person. Low scores are associated with low vitality or energy level, a preference for setting a slow pace, and a tendency to tire easily and be below average in terms of sheer output or productivity.

At the end of the course students indicated on a questionnaire the classroom behavior they had observed during the semester. (The instrument was the same as that used at the end of the first semester). After completing the questionnaire they used the Personal Inventory to describe their teachers' personality traits.

Rights of Subjects

For ethical as well as methodological reasons, students were asked not to put their names on any of the instruments; instead, they were requested to use a non-identifying code name of their own choice, one which "they would remember," so that responses made at the beginning of the semester could be related to responses made at the end of the course. Teachers were promised complete confidentiality of their responses; only their sex and a code number for their class appeared on the test and on tabulations of responses.

Upon completion of the project all participants were given a brief summary of the results if they requested it. (They were told about this opportunity before data were collected). Tabulations of individual data were arranged in such a manner that an individual could inspect his own individual responses, if he so wished, without seeing those of others.

Summary of Data Collection

In the box below is a summary of the data collection schedule, indicating the variables measured and the instruments used.

<u>Variable</u>	<u>Instrument</u>
<u>Beginning of first semester</u>	
Students' personality traits	Gordon Personal Profile
Teachers' self-perceived personality traits	Gordon Personal Profile
<u>End of first semester</u>	
Students' perceptions of classroom behavior	Skill Factor of the Michigan Rating Form
	Costin Survey of Classroom Behavior
Students' perceptions of teachers' personality traits	Gordon Personal Profile
<u>Beginning of second semester</u>	
Students' preferences for teachers' personality traits	Gordon Personal Inventory
Teachers' self-perceived personality traits	Gordon Personal Inventory
<u>End of second semester</u>	
Students' perception of classroom behavior	Skill Factor of the Michigan Rating Form
	Costin Survey of Classroom Behavior
Students' perceptions of teachers' personality traits	Gordon Personal Inventory

It will be noted that data concerning the students' personality traits were collected only during the first semester, and that information concerning the traits they preferred in their teachers was gathered only during the second semester, with a different set of personality variables being measured each time. These variations were carried out for several reasons. First of all, it was necessary to make maximum use of the relatively brief time permitted for gathering the data and to keep to a minimum any undue interference with regular classroom activities. This policy enhanced considerably the cooperation received from participants in the study. Secondly, it was assumed that these variations would help reduce the reactive effects so frequently encountered in research where several instruments are administered in rapid succession, and especially when these consist of similar kinds of personality tests. At the same time, these variations permitted an examination of eight different personality variables, instead of four, even though the same questions could not be asked for all of them.

Method of Analyzing Data

Product-moment correlation was the chief method of analysis. Correlations were based on the scores obtained for teachers, and on the mean scores of their students. Thus, the degrees of freedom for an r were determined by the number of teachers. Table 1 and Table 2 show the mean scores and standard deviations of the variables involved in the correlational analysis.

Table 1

Students' Perceptions of Classroom Behavior

Dimension of behavior	1st semester		2nd semester	
	M	SD	M	SD
Teacher skill (5 items)	16.9	2.4	16.5	2.6
Student involvement (5 items)	15.5	3.4	14.4	2.9
Teacher support (7 items)	21.9	3.1	21.3	3.2
Negative affect (4 items)	9.1	2.1	8.9	1.4
Teacher control (4 items)	13.2	2.1	13.1	1.3

Note. Perceptions of classroom behavior were measured with items from the Michigan Rating Form, Skill Factor (Isaacson, et al, 1964) and the Survey of Classroom Behavior (Costin, 1971). All items were scored on a scale from 5 to 1; the higher the score, the more frequent the behavior. Each entry represents the mean of the mean scores of the teachers' classes. The N for teachers was 55 the first semester and 51 the second semester.

Table 2

**Students' and Teachers' Perceptions of Personality Traits,
and Students' Preferences for Teacher Traits**

Personality trait	Students' perceptions of teachers		Students' self-perceptions		Teachers' self-perceptions		Students' preferences	
	M	SD	M	SD	M	SD	M	SD
<u>First semester</u>								
Ascendancy	23.6	3.1	20.3	1.5	21.5	6.3	--	--
Responsibility	25.8	2.5	22.7	1.5	23.5	6.4	--	--
Emotional stability	25.2	3.1	22.1	1.8	23.4	6.7	--	--
Sociability	21.1	2.6	20.4	1.6	19.1	6.4	--	--
<u>Second semester</u>								
Cautiousness	25.9	2.5	--	--	26.7	5.6	25.8	.87
Original thinking	26.1	3.7	--	--	27.4	6.0	28.5	1.3
Personal relations	29.2	3.6	--	--	24.7	6.2	32.4	1.2
Vigor	21.5	3.6	--	--	22.6	6.4	24.9	1.3

Note. Personality traits were measured with the Personal Profile (Gordon, 1963a) the first semester, and the Personal Inventory (1963b) the second semester. Range of possible scores for the Profile is 0-36, and for the Inventory 0-40. Each entry for students represents the mean of the mean scores of the teachers' classes. The N for teachers was 55 the first semester and 51 the second semester.

III. Results

Classroom Behavior and Student Perception of Teacher Personality

Table 3 shows the correlations between students' perceptions of classroom behavior and their descriptions of the teachers personality traits. (Question 1, page 4). As noted in the table, significant¹ r's were as follows:

1. Teacher skill was correlated positively with original thinking (.80), ascendancy (.67), vigor (.67), personal relations (.60), emotional stability (.32), and responsibility (.29).
2. Student involvement was correlated positively with original thinking (.55), personal relations (.55), vigor (.45), and sociability (.39); it was correlated negatively with responsibility (-.29).
3. Teacher support was correlated positively with original thinking (.63), personal relations (.59), sociability (.46) and vigor (.36).
4. Negative affect was correlated negatively with original thinking (-.63), personal relations (-.56), vigor (-.40), and sociability (-.40).
5. Teacher control was correlated positively with vigor (.43) and negatively with sociability (-.31).

Classroom Behavior and Student Personality

Table 4 shows the correlations between students' perceptions of classroom behavior and perceptions of their own personality traits. (Question 2, page 4). As indicated in the table, significant r's were as follows:

1. Student involvement was correlated positively with ascendancy (.30).
2. Teacher support was correlated positively with ascendancy (.33), responsibility (.29) and sociability (.33).
3. Negative affect was correlated negatively with ascendancy (-.31) and sociability (-.29).

¹Unless indicated otherwise, all p values reported in this study are for two-tailed tests of significance.

Table 3

**Correlations (*r*'s) between Students' Perceptions
of Classroom Behavior and their Perceptions of
Teachers' Personality Traits**

Personality trait	Classroom behavior				
	Teacher skill	Student involvement	Teacher support	Negative affect	Teacher control
First semester					
Ascendancy	.67**	-.01	.17	.02	.25
Responsibility	.29*	-.29*	-.06	.14	.22
Emotional stability	.32*	.08	.24	-.10	-.20
Sociability	.22	.39**	.46**	-.40**	-.31*
Second semester					
Cautiousness	.08	.02	-.03	.06	.09
Original thinking	.80**	.55**	.63**	-.63**	.18
Personal relations	.60**	.55**	.59**	-.56**	.01
Vigor	.67**	.45**	.36**	-.40**	.43**

Note. Correlations are based on the mean scores of each teacher's students. *N* of teachers = 55 for first semester and 51 for second semester. See Tables 1 and 2 for note on instruments.

* $p < .05$
 ** $p < .01$

Table 4

**Correlations (r 's) between Students' Perceptions
of Classroom Behavior and their Perceptions
of Own Personality Traits**

Personality trait	Classroom behavior				
	Teacher skill	Student involve- ment	Teacher support	Negative affect	Teacher control
Ascendancy	.06	.30*	.33*	-.31*	-.16
Responsibility	.11	.08	.29*	.12	-.05
Emotional stability	.01	-.16	-.06	-.26	.11
Sociability	-.05	.23	.33*	-.29*	-.26

Note. Correlations are based on the mean scores of each teacher's students. Data are for the first semester. N of teachers = 55. See Tables 1 and 2 for note on instruments.

* $p < .05$

Classroom Behavior and Teachers' Self-described Traits

Table 5 shows the correlations between students' perceptions of classroom behavior and teachers' perceptions of their own personality traits (Question 3, page 4). Significant r 's, as indicated in the table, were as follows:

1. Teacher skill was correlated positively with vigor (.32), as was student involvement (.40) and teacher support (.43).
2. Negative affect was correlated negatively with vigor (-.39).
3. Teacher control was correlated negatively with original thinking (-.28).

Comparisons between Personality Correlates of Classroom Behavior

The preceding findings provided answers to Questions 1, 2, and 3 of this study: What is the relationship between students' perceptions of classroom behavior and (a) students' perceptions of their teachers' personality traits, (b) students' perceptions of their own personality traits, and (c) teachers' perceptions of their own traits? Further examination of these results suggests some interesting differences as well as similarities among the various relationships.

Classroom Behavior, Students' Perceptions of Teachers' Traits, and Students' Self-perceived Traits. Table 6 shows a systematic comparison between the r 's from Table 3 (classroom behavior versus students' perceptions of teachers' personality traits) and the r 's from Table 4 (classroom behavior versus students' perceptions of their own traits). Hotelling's (1940) solution was used to test the significance of the difference between r 's in each pair. This formula takes into consideration a third correlation: students' perceptions of teachers' traits versus students' perceptions of own traits, as shown in the last column of Table 6. The results of these comparisons were as follows:

1. Teacher support was correlated positively with students' perceptions of their teachers' sociability (.46, $p < .01$) and with students' self-perceptions of this trait (.33, $p < .05$); the two r 's did not differ significantly ($t = 0.81$, $p > .05$).

2. Negative affect was correlated negatively with students' perceptions of their teachers' sociability ($-.40, p < .01$) and with students' self-perceptions of that trait ($-.29, p < .05$); the two r 's did not differ significantly ($t = 0.66, p > .05$).
3. Teacher skill was more highly correlated with students' perceptions of their teachers' ascendancy and emotional stability than it was with the students' self-perceptions of these traits (.67 vs. .06, $t = 4.25, p < .01$; .32 vs. .01, $t = 2.05, p < .05$).
4. In the following comparisons, classroom behavior was significantly correlated with students' perceptions of their teachers' personality traits, but not with students' self-perceptions of these traits, although in no instance did the two r 's differ significantly ($p > .05$):
 - (a) Teacher skill and responsibility (.29 vs. .11, $t = 1.08$).
 - (b) Student involvement and responsibility ($-.29$ vs. .03, $t = 1.25$).
 - (c) Student involvement and sociability (.39 vs. .23, $t = 0.93$).
 - (d) Teacher control and sociability ($-.31$ vs. $-.26$, $t = 0.28$).
5. In several other instances, classroom behavior was significantly correlated with students' personality traits but not with their perceptions of the teachers' traits; in none of the comparisons, however, did the two r 's differ significantly ($p > .05$):
 - (a) Student involvement and ascendancy (.30 vs. $-.01$, $t = 1.58$).
 - (b) Teacher support and ascendancy (.33 vs. .17, $t = 0.89$).
 - (c) Teacher support and responsibility (.29 vs. $-.06$, $t = 1.37$).
 - (d) Negative affect and ascendancy ($-.31$ vs. .02, $t = 1.59$).

Table 5

**Correlations (r 's) between Students' Perceptions
of Classroom Behavior and Teachers' Perceptions
of Own Personality Traits**

Personality trait	Classroom behavior				
	Teacher skill	Student involvement	Teacher support	Negative affect	Teacher control
First semester					
Ascendancy	-.11	-.20	-.08	.12	-.01
Responsibility	.01	-.06	.01	-.04	-.03
Emotional stability	-.04	-.10	.01	.14	-.05
Sociability	-.05	-.20	-.05	.14	.07
Second semester					
Cautiousness	-.12	-.13	-.08	.10	-.09
Original thinking	-.01	-.03	.20	-.14	-.28*
Personal relations	.10	.12	.14	-.09	-.12
Vigor	.32*	.40**	.43**	-.39**	-.10

Note. Correlations are based on teachers' scores and the mean scores of each teacher's students. N of teachers = 55 for the first semester and 51 for second semester. See Tables 1 and 2 for note on instruments.

* $p < .05$

** $p < .01$

Table 6

Comparison of Correlations (r 's) between Students' Perceptions of Classroom Behavior, their Perceptions of Teachers' Personality Traits, and their Own Traits

Personal-ity trait	Upper r in each pair: Classroom behavior vs students' perceptions of teachers' trait. Lower r in each pair: Classroom behavior vs students' perceptions of own trait.					Students' perceptions of teachers' traits vs Students' perceptions of own traits
	Teach-er skill	Student involve-ment	Teacher support	Nega-tive affect	Teacher control	
Ascend-ancy	.67** ^b	-.01	.17	.02	.25	.06
	.06 ^b	.30*	.33*	-.31*	-.16	
Responsi-bility	.29*	-.29*	-.06	.14	.22	.22
	.11	.08	.29*	.12	-.05	
Emotion-al sta-bility	.32* ^a	.08	.24	-.10	-.20	.34*
	.01 ^a	-.16	-.06	-.26	.11	
Socia-bility	.22	.39**	.46**	-.40**	-.31*	.07
	-.05	.23	.33*	-.29*	-.26	

Note. All paired coefficients are from Tables 3 and 4. Asterisks indicate probability levels of r 's which are significantly greater than zero. Superscript letters indicate the two r 's differ significantly from each other: $a = p < .05$; $b = p < .01$.

* $p < .05$

** $p < .01$

Classroom Behavior, Students' Perceptions of Teachers' Traits, and Teachers' Perceptions of Own Traits. Table 7 compares the r 's from Table 3 (classroom behavior versus students' perceptions of teachers' personality traits) with the r 's from Table 5 (classroom behavior versus teachers' self-perceived traits). As in the previous comparisons (Table 6) Hotelling's solution was used to test the significance of the difference between each pair of r 's (the last column in Table 7 shows the third set of correlations necessary for the Hotelling solution: students' perceptions of teachers' traits versus teachers' self-perceived traits).

1. Four dimensions of classroom behavior were significantly correlated with students' perceptions of the teachers' vigor, and with the teachers' self-perceptions of that trait: (a) teacher skill (.67 and .32); (b) student involvement (.45 and .40); (c) teacher support (.36 and .43); and negative affect (-.40 and -.39). Only the r 's for teacher skill differed significantly ($t = 2.83$, $p < .01$).
2. In each of the following comparisons, the correlation between classroom behavior and students' perceptions of their teachers' personality trait was significantly higher than the correlation between classroom behavior and the teachers' perceptions of the trait:
 - (a) Teacher skill and ascendancy (.67 vs. -.11, $t = 4.11$, $p < .01$).
 - (b) Teacher skill and original thinking (.80 vs. -.01, $t = 6.95$, $p < .01$).
 - (c) Teacher skill and personal relations (.60 vs. .10, $t = 3.91$, $p < .01$).
 - (d) Student involvement and original thinking (.55 vs. -.03, $t = 3.25$, $p < .01$).
 - (e) Student involvement and personal relations (.55 vs. .12, $t = 3.20$, $p < .01$).
 - (f) Teacher support and sociability (.46 vs. -.05, $t = 2.43$, $p < .05$).
 - (g) Teacher support and original thinking (.63 vs. .20, $t = 2.93$, $p < .01$).

- (h) Teacher support and personal relations (.59 vs. .14, $t = 3.46$, $p < .01$).
- (i) Negative affect and original thinking (-.63 vs. -.14, $t = 3.31$, $p < .01$).
- (j) Negative affect and personal relations (-.56 vs. -.09, $t = 3.54$, $p < .01$).
- (k) Teacher control and vigor (.43 vs. -.10, $t = 2.17$, $p < .05$).

3. In the following comparisons, classroom behavior was also significantly correlated with students' perceptions of teachers' traits, but not with the teachers' self-perceptions of these traits; however, in none of the comparisons did the two r 's differ significantly ($p > .05$):

- (a) Teacher skill and responsibility (.29 vs. .01, $t = 1.52$).
- (b) Teacher skill and emotional stability (.32 vs. -.04, $t = 1.62$).
- (c) Student involvement and responsibility (-.29 vs. -.06, $t = 1.25$).
- (d) Student involvement and sociability (.39 vs. -.20, $t = 1.11$).
- (e) Negative affect and sociability (-.40 vs. .14, $t = 1.50$).
- (f) Teacher control and sociability (-.31 vs. .07, $t = 1.33$).

4. In one instance, teacher control was significantly correlated with teachers' perceptions of their original thinking, but not with students' self-perceptions of that trait. However, the two r 's did not differ significantly (-.28 vs. .18, $t = 0.55$).

Table 7

Comparison of Correlations (r 's) between Students' Perceptions of Classroom Behavior, their Perceptions of Teachers' Personality Traits, and Teacher's Perceptions of Own Traits

Personal- ity trait	Upper <u>r</u> in each pair: Classroom behavior vs students' perceptions of teachers' traits					Students' perceptions of teach- ers' traits vs Teachers' perceptions of own traits
	Lower <u>r</u> in each pair: Classroom behavior vs teachers' perceptions of own traits					
	Teach- er skill	Student involve ment	Teacher support	Nega- tive affect	Teacher Control	
First Semester						
Ascend- ancy	.67** ^b -.11 ^b	-.01 -.20	.17 -.08	.02 .12	.25 -.01	.14
Responsi- bility	.29* .01	-.29* -.06	-.06 .01	.14 -.04	.22 -.03	.05
Emotion- al sta- bility	.32* -.04	.08 -.10	.24 .01	-.10 .14	-.20 -.05	.15
Socia- bility	.22 -.05	.39** -.20	.46** ^a -.05 ^a	-.40** .14	-.31* .07	.08
Second Semester						
Cautious- ness	.08 -.12	.02 -.13	-.03 -.08	.06 .10	.09 -.09	.20
Original thinking	.80** ^b -.01 ^b	.55** ^b -.03 ^b	.63** ^b .20 ^b	-.63** ^b -.14 ^b	.18 -.28*	.12
Personal relations	.60** ^b .10 ^b	.55** ^b .12 ^b	.59** ^b .14 ^b	-.56** ^b -.09 ^b	.01 -.12	.37**
Vigor	.67** ^b .32* ^b	.45** .40**	.36** .43**	-.40** -.39**	.43** ^a -.10 ^a	.32*

Note. All coefficients are from Tables 3 and 5. Asterisks indicate probability levels of r 's which are significantly greater than zero. Superscript letters indicate the two r 's differ significantly from each other: $a = p < .05$; $b = p < .01$

* $p < .05$

** $p < .01$

Classroom Behavior versus Students' and Teachers' Perceptions of Own Traits. Table 8 compares the r 's from Table 4 (classroom behavior versus students' perceptions of their personality traits) and Table 5 (classroom behavior versus teachers' self-perceived traits). As in the previous two sets of comparisons (Tables 6 and 7) Hotelling's solution was used to test the significance of the difference between each pair of r 's; the last column of Table 8 shows the third set of correlations involved in the tests: students' traits versus teachers' traits.

1. In the following comparisons, classroom behavior was significantly correlated with students' traits but not with teachers' traits; however, in no instance did the two r 's differ significantly ($p > .05$):
 - (a) Student involvement and ascendancy
(.30 vs. -.20, $t = 0.54$).
 - (b) Teacher support and ascendancy
(.33 vs. -.08, $t = 1.34$).
 - (c) Teacher support and sociability
(.33 vs. -.05, $t = 1.55$).
 - (d) Negative affect and ascendancy
(-.31 vs. .12, $t = 1.02$).
 - (e) Negative affect and sociability
(-.29 vs. .14, $t = 0.82$).
2. In no instances were there significant correlations between classroom behavior and teachers' self-perceived traits.

Table 8

Comparison of Correlations (r 's) between Students' Perceptions of Classroom Behavior, their Perceptions of Own Personality Traits, and Teachers' Perceptions of Own Traits

Personal- ity trait	Upper r in each pair: Classroom behavior vs students' own traits Lower r in each pair: Classroom behavior vs teachers' own traits					Students' traits vs Teachers' traits
	Teacher skill	Student involvement	Teacher support	Negative affect	Teacher control	
Ascend- ancy	.06 -.11	.30* -.20	.33* -.08	-.31* .12	-.16 -.01	.00
Responsi- bility	.11 .01	.08 -.06	.29* .01	.12 -.04	-.05 -.03	.05
Emotional stability	.01 -.04	-.16 -.10	-.06 .01	-.26 .14	.11 -.05	.09
Socia- bility	-.05 -.05	.23 -.20	.33* -.05	-.29* .14	-.26 .07	.06

Note. All coefficients are from Tables 4 and 5. Asterisks indicate probability levels of r 's which are significantly greater than zero. None of the r 's in a pair differed significantly from each other ($p > .05$).

* $p < .05$

** $p < .01$

Classroom Behavior and Discrepancies in Personality Traits

As indicated earlier (page 4), Question 4 of this study was suggested by a consensus found in theories of cognitive consistency: disconfirmation of critical expectations constitutes an aversive situation. However, the question dealt with preferences rather than expectancies. Its purpose was to discover whether disconfirmation of students' preferences for teachers' personality traits (i.e., discrepancies between preferred traits and observed traits) would be significantly related to the students' perceptions of their teachers' skill, and to negative affect in the classroom. Assuming that such disconfirmation would be "aversive", it seemed reasonable to make the following prediction: the greater the difference between the traits students prefer in their teachers at the beginning of the course and the traits they later observe in them, the less skilled they will perceive their teachers to be, and the more negative affect they will perceive in the classroom.

Table 9 shows the correlations used to test this prediction. Each r represents the correlation between discrepancy in a personality trait and perception of classroom behavior. ("Discrepancy" was determined by computing the absolute difference between students' mean preference for their teacher's trait at the beginning of the course and their mean observation of the trait as reported at the end of the course). Results were as follows (p values are one-tailed):

1. Teacher skill was correlated negatively with discrepancy between "preferred" and "observed" traits of original thinking (-.67), personal relations (-.52) and vigor (-.55) ($p < .005$ for each r). Thus, the greater the difference was between students' preferences for these traits and their later observations of them, the less skilled they perceived their teachers to be.
2. Negative affect was correlated positively with discrepancy between "preferred" and "observed" traits of original thinking (.56, $p < .005$), personal relations (.48, $p < .005$) and vigor (.29, $p < .025$). Thus, the greater the difference was between students' preferences for these traits and their observation of them, the greater was the negative affect they perceived in the classroom. It should also be noted that the smallest correlation was for vigor.
3. In contrast with the preceding findings, neither teacher skill nor negative affect was correlated significantly with discrepancy between the preferred and the observed trait of cautiousness (-.11 and -.05, $p > .05$).

Table 9

**Students' Perceptions of Classroom Behavior versus
Discrepancies between Personality Traits they Preferred
and Personality Traits they Observed in Teachers**

Personality trait	Classroom behavior	
	Teacher skill	Negative affect
Cautiousness	-.11	-.05
Original thinking	-.67**	.56**
Personal relations	-.52**	.48**
Vigor	-.55**	.29*

Note. "Discrepancy" was based on the absolute difference between students' mean preference for their teacher's personality trait and their mean observation of that trait. Each r represents the correlation between "discrepancies" and students' perceptions of classroom behavior. Data are for the second semester. N of teachers = 51. See Tables 1 and 2 for note on instruments.

*p < .025 (one-tailed)

**p < .005 (one-tailed)

In addition, the mean scores for the traits students preferred in their teachers were compared with the mean scores they observed (Table 2, page 15). Preferences were significantly higher than observations in three of the four comparisons: original thinking (difference = 2.4, r between scores = .41, $t = 5.07$, $p < .01$); personal relations (3.2, $r = .29$, $t = 6.62$, $p < .01$); and vigor (3.4, $r = .02$, $t = 6.30$, $p < .01$). There was no significant difference between the mean scores for cautiousness (0.1, $r = .26$, $t = 0.29$, $p > .05$). The variance of students' preferences for a trait was smaller than their observations of the trait. (See Table 2 for standard deviations).

Not only, then, were the predicted correlations supported for three of the four traits measured, but the results also indicated that on the average students' initial preferences for these traits were significantly greater than their later descriptions of the traits, as actually observed in their teachers.

Other Findings

Although not directly involved in the questions posed at the outset of this study, a number of other significant differences occurred when the mean scores for students' and teachers' perceptions of traits (Table 2) were compared.

1. Students perceived their teachers to be more patient, tolerant, and trusting in personal relations than the teachers described themselves (difference = 4.5, $t = 5.44$, $p < .01$); they also perceived the teachers as more ascendant (2.1, $t = 2.33$, $p < .05$), responsible (2.3, $t = 2.50$, $p < .05$), and sociable (2.0, $t = 2.19$, $p < .05$). There were no significant differences in perceptions of emotional stability, cautiousness, original thinking, and vigor (t 's ranged from 1.90 for emotional stability to .87 for vigor). In each instance the variance of the teachers' self-descriptions was significantly greater than the variance of the students' perceptions ($p < .01$).
2. Students perceived themselves as being less ascendant than they perceived their teachers to be (difference = 3.3, r between scores = .06, $t = 7.21$, $p < .01$) and also perceived themselves to be less responsible (3.1, $r = .22$, $t = 8.65$, $p < .01$) and emotionally stable (3.1, $r = .34$, $t = 7.56$, $p < .01$). There was no significant difference in perceptions of sociability (0.7, $r = .07$, $t = 1.75$, $p > .05$).

No significant differences occurred when the mean scores for students' self-described traits were compared with the mean scores for teachers' self-descriptions. However, the variances for the teachers' perceptions were significantly greater than the variances for the students' perceptions ($p < .01$).

IV. Summary: Objectives, Procedures, and Results

This project investigated relationships between college students' perceptions of classroom behavior and their perceptions of the teachers' personality traits, their own personality traits, and the teachers' self-described traits. It also sought to discover how students' perceptions of classroom behavior were related to discrepancies between the personality traits they preferred in their teachers and the traits they observed.

The study was carried out during two consecutive semesters of an academic year, and involved the discussion sections of large introductory courses in the social-behavioral sciences at the University of Illinois. These sections were conducted by graduate teaching assistants, and were chosen for study according to the following procedures: If the teacher was responsible for three or more discussion sections (as most of the teachers were), then two sections were selected at random; if the teacher conducted only two sections, then both were used; in addition, a few teachers (five in all) were included each semester who taught only one section. A total of 55 teachers participated in the study the first semester, and 51 the second semester. On the average, there were 25 students in a section the first semester, and 28 the second semester.

At the beginning of the first semester, students described their personality traits on the Gordon Personal Profile, while teachers used the instrument to describe their own traits. The Profile measures four dimensions of personality: ascendancy, responsibility, emotional stability, and sociability. At the end of the semester students used the Michigan Form and the Costin Survey to rate the frequency with which the following dimensions of classroom behavior had occurred: teacher skill in communication, student involvement in classroom activities, teacher support and encouragement of student behavior, negative affect in the classroom, and teacher control of activities. Students then described on the Personal Profile their teachers' personality traits as they had observed them during the semester.

At the beginning of the second semester, students used the Gordon Personal Inventory to indicate the personality traits they would prefer in their discussion section teacher, while the teachers used the instrument to describe themselves. The Inventory is a companion test to the Profile, and measures these traits: cautiousness, original thinking, personal relations, and vigor. At the end of the semester students used the Michigan Form and the Costin Survey to rate classroom behavior, and also described on the Inventory the personality traits of the teacher.

Product-moment correlations were obtained between students' ratings of classroom behavior and (a) their perceptions of the teachers' personality traits, (b) their own traits, and (c) the teachers' self-described traits. These correlations were based on mean scores of each teacher's students, and the teachers' scores; thus, the degrees of freedom for each r were determined by the number of teachers.

In addition, the absolute difference was computed between the mean "preferred" trait score for each teacher's students, and the mean score for that trait based on the students' actual observations of the teacher. The discrepancies for each trait were then correlated with mean ratings of classroom behavior. This analysis was based on an assumption, stemming from theories of cognitive consistency, that "disconfirmation" of preferred traits would constitute an aversive condition; thus, it was predicted that the greater the difference between "preferred" traits and "observed" traits, the less skill students would ascribe to their teachers, and the more negative affect they would perceive in the classroom.

In the following summary of findings, correlations "significantly" greater than zero, and "significant differences" between two correlations, imply p values of .05 or less.

1. Students' ratings of classroom behavior were correlated significantly with their perceptions of teacher personality traits, as follows:
 - (a) Teacher skill in communication was highly correlated with original thinking (.80), and showed moderate to low correlations with ascendancy (.67), vigor (.67), personal relations (.60), emotional stability (.32), and responsibility (.29).
 - (b) Student involvement and teacher support were also correlated positively with original thinking, personal relations, and vigor, but in general the r's were lower than the corresponding ones for skill, ranging from .63 (support and original thinking) to .36 (support and vigor). In addition, student involvement and teacher support were correlated positively with sociability (.39 and .46), while involvement was correlated negatively with responsibility (-.29).

- (c) Negative affect was correlated negatively with original thinking (-.63), personal relations (-.56), vigor (-.40), and sociability (-.40). Teacher control was also correlated negatively with sociability (-.31), but positively with vigor (.43).
- 2. The following dimensions of classroom behavior were significantly correlated with students' personality traits:
 - (a) Student involvement and teacher support were correlated positively with ascendancy (.30 and .33); in addition, teacher support was correlated positively with responsibility (.29) and sociability (.33).
 - (b) Negative affect was correlated negatively with ascendancy (-.31) and sociability (-.29).
- 3. These dimensions of classroom behavior were significantly correlated with teachers' perceptions of their personality traits:
 - (a) Teacher skill, student involvement, and teacher support were correlated positively with vigor (.32, .40, and .43), while negative affect was correlated negatively with that trait (-.39).
 - (b) Teacher control was correlated negatively with original thinking (-.28).
- 4. Superficial comparisons of these findings indicate that classroom behavior was significantly correlated with students' perceptions of their teachers' personality traits, and with students' traits, more frequently than it was with the teachers self-described traits. For the first semester, eight of the 20 correlations involving students' perceptions of teachers' traits were significant, six of the 20 correlations involving students' personality traits were significant, while none of the 20 correlations involving the teachers' self-description were significant. For the second semester, 13 of

the 20 correlations for students' perceptions of their teachers' traits were significant, but only five of the correlations for the teachers' self-described traits were significant. (Students' traits were not measured the second semester).

Such comparisons only suggest clues concerning possible differences among these sets of correlations; more precise comparisons were necessary, since two r 's may not necessarily differ significantly from each other even though one is significantly greater than zero and the other is not. And, of course, two r 's that are both significantly greater than zero might also differ significantly from each other. Accordingly, tests of significance employing Hotelling's solution were applied systematically to detect possible differences between the pairs of correlations involved in the comparisons, as tabulated below. (Hotelling's solution takes into consideration a third variable which two r 's have in common; in this case, it was "classroom behavior."):

<u>Correlation between classroom behavior and:</u>	<u>Compared with correlation between classroom behavior and:</u>
students' perceptions of teachers' traits	students' self-described traits
students' perceptions of teachers' traits	teachers' self-described traits
students' self-described traits	teachers' self-described traits

The following results of these comparisons include only those instances in which there was a significant difference between two correlations, or where two correlations were both significantly greater than zero but did not differ significantly from each other.

(a) Students' perceptions of teacher traits versus their self-described traits.

- (1) Teacher skill was more highly correlated with students' perceptions of their teachers' ascendancy (.67) and emotional stability (.32) than with students' self-descriptions of these traits (.06 and .01).
- (2) Teacher support was correlated positively with students' perceptions of their teachers' sociability (.46) and with students' self-perceptions of the trait (.33); the two r's did not differ significantly.
- (3) Negative affect was correlated negatively with students' perceptions of their teachers' sociability (-.40), and with students' self-perceptions of the trait (-.29); the two r's did not differ significantly.

(b) Students' perceptions of teachers' traits versus teachers' self-described traits.

- (1) Teacher skill was more highly correlated with students' perceptions of their teachers' original thinking (.80), ascendancy (.67) and personal relations (.60) than with the teachers' self-perceptions of these traits (-.01, -.11, .10).
- (2) Student involvement was more highly correlated with students' perceptions of their teachers' original thinking (.55) and personal relations (.55) than the teachers' self-perceptions of these traits (-.03 and .12).

- (3) Teacher support was more highly correlated with students' perceptions of their teachers' original thinking (.63), personal relations (.59), and sociability (.46), than with the teachers' self-perceptions of these traits (.20, .14, and -.05).
 - (4) Negative affect was more highly correlated with students' perceptions of their teachers' original thinking (-.63) and personal relations (-.56) than with the teachers' self-perceptions of these traits (-.14 and -.09).
 - (5) Teacher control was more highly correlated with students' perceptions of their teachers' vigor (.43) than with teachers' self-perceptions of that trait (-.10).
 - (6) Students' perceptions of their teachers' vigor, and the teachers' self-descriptions of that trait, were both correlated significantly with teacher skill (.67 and .32), student involvement (.45 and .40), teacher support (.36 and .43), and negative affect (-.40 and -.39). Only the two correlations involving teacher skill differed significantly from each other.
- (c) Students' self-descriptions versus teachers' self-descriptions.

As indicated previously (page 26), there were a number of instances in which classroom behavior was correlated significantly with students' traits but not with teachers' traits; in no case, however, did these correlations differ significantly from the corresponding r's involving teachers' traits.

5. Of the eight correlations involving discrepancies between students' preferences for teacher personality traits, and their actual observation of traits, six confirmed the predicted relationship. Teacher skill was negatively correlated with the discrepancy between students' preference for original thinking, personal relations, and vigor, and their observations of these traits. (-.67, -.52, and -.55). Negative affect was positively correlated with the discrepancy between students' preferences for these traits, and their observations of them (.56, .48, and .29). Thus, the greater the difference was between students' preferences for and observations of their teachers' original thinking, personal relations, and vigor, the less skilled they reported their teachers' to be, and the more negative affect they perceived in the classroom.

In addition, comparisons of mean scores for traits students initially preferred in their teachers and traits they later perceived indicated that preferences for original thinking, vigor, and personal relations were significantly greater than actual observations of these traits.

6. The following results were obtained when the mean scores for students' and teachers' perceptions of personality traits were compared:
- (a) Students perceived their teachers to be more patient, tolerant, and trusting in personal relations than the teachers perceived themselves to be; they also perceived the teachers to be more ascendant, responsible, and sociable.
 - (b) Students perceived themselves to be less ascendant, responsible, and emotionally stable than they perceived their teachers to be.
 - (c) There were no significant differences between students' self-described traits and the teachers' self-descriptions.

V. Discussion and Conclusions

Comparisons of Personality Correlates

Considering only the relative frequency with which statistically significant correlations occurred, it is apparent that students' observations of classroom behavior were more consistently related to their perceptions of teachers' personality traits than to their own traits or the teachers' self-described traits. However, more precise and meaningful conclusions emerge when one considers the results of comparing these correlations to detect significant differences between them.

Students' perceptions of teachers' traits and their own traits. The more highly students rated their teachers' supporting behavior (encouraged correction of errors; asked students to help determine objectives, content, and evaluation; praised students, and encouraged them to express their ideas and opinions), the greater the degree of sociability they ascribed to the teachers and to themselves (like to be and work with people; gregarious). On the other hand, the greater the negative affect in the classroom (teacher corrected or rejected students' statements without further discussion; teacher failed to give students choice in evaluation; students showed few signs of humor; students failed to ask teacher for information or opinions), the less sociable they perceived the teachers and themselves to be.

Teacher skill showed a different kind of relationship to personality traits. The more highly students rated their teachers' "all-around teaching ability" and other skills in communication (stimulated intellectual curiosity, explained clearly, made material interesting, skilled in observing students' reactions), the more ascendant (assertive, self-assured) and emotionally stable (well-balanced, relatively free from anxieties and nervousness) they perceived the teachers to be. Furthermore, these correlations were significantly greater than the ones between teacher skill and the students' own traits of ascendancy and emotional stability, the latter correlations being practically zero.

There were several other instances in which students' perceptions of classroom behavior were correlated significantly with their perceptions of teachers' traits, but not with their own traits, and also several instances where classroom behavior was correlated significantly with students' traits but not with their perceptions of teachers' traits. However, in none of these instances did the compared correlations differ significantly from each other. It seems prudent, therefore, to consider such findings as less meaningful correlates of

teacher-student behavior than the previously cited instances where significant differences between correlations did occur, or where the two correlations that were compared were both significantly greater than zero, but did not differ significantly from each other.

Students' traits and teachers' self-descriptions. It will be recalled that for logistical and other practical reasons, students' traits were measured only during the first semester. Therefore, comparisons involving teachers' self-described traits and students' traits were necessarily confined to the four dimensions of ascendancy, responsibility, emotional stability, and sociability. In contrast to findings from the previous comparisons, no significant differences occurred when the 20 correlations between classroom behavior and students' traits were compared with the corresponding correlations for teachers' self-described traits, even though six of the correlations involving students' traits were significantly greater than zero, while none for teacher traits was significant. This lack of significant differences between correlations mitigates against any conclusion that the students' self-perceived personality traits represent more meaningful correlates of classroom behavior than the teachers' self-described traits.

Students' perceptions of teachers' traits and teachers' self-described traits. The most conclusive results emerged when correlations between classroom behavior and teachers' self-descriptions were compared with correlations involving students' descriptions of the teachers' traits. First of all, it is interesting to note that in four out of 40 comparisons, classroom behavior was significantly correlated with both the teachers' and the students' perceptions of one particular trait: vigor (energetic, works rapidly, accomplishes more than the average person). Vigor was correlated positively with teacher skill, student involvement, and teacher support; it was correlated negatively with negative affect. The correlation between skill and teachers' self-perceptions of their vigor is consistent with the findings by Isaacson, McKeachie, and Milholland (1963) that "teaching fellows" (teaching assistants) in an introductory psychology course who scored high on the "enthusiasm" dimension of the 16PF Questionnaire (Cattell, Saunders, and Stice, 1957) also tended to receive high student ratings for skill in teaching.

Although teacher skill was correlated significantly with both the students' descriptions of the teachers' vigor and the teachers' self-descriptions of that trait, the correlations for students' descriptions were significantly higher. Furthermore, for 17 other comparisons, classroom behavior was significantly correlated with students' descriptions of their teachers' traits, but not with their teachers' self-descriptions, and in 11 of these comparisons the correlation for students' descriptions was significantly higher. Most of the significant differences involved two traits: original thinking (likes to work on difficult problems, enjoys thought-provoking

questions and discussion, likes to think about new ideas) and personal relations (faith and trust in people, tolerant, patient, understanding). Students' perceptions of these traits were correlated positively with teacher skill, student involvement, and teacher support; they were correlated negatively with negative affect in the classroom. The correlation between skill and original thinking was especially high (.80), although none of the other correlations was less than .55. The remaining instances where classroom behavior was more highly correlated with students' self-descriptions included positive correlations between teacher skill and ascendancy; teacher support and sociability; and teacher control and vigor.

The chart on page 41 summarizes in a non-statistical fashion the significant findings that emerged from the foregoing comparisons of correlations between classroom behavior and personality traits. It does not include comparisons involving both students' and teachers' self-perceived traits, since in no instance did they differ significantly from each other in their relationship to classroom behavior.

Comparison of Correlations between Classroom
Behavior and Personality Variables

Students' perceptions of Classroom behavior	Personality variables	
	1. Students' perceptions of teachers' trait versus 2. Students' own trait	1. Students' perceptions of teachers' trait versus 2. Teachers' self-perceived trait
Teacher skill	Ascendancy (+) Emotional stability (+)	Vigor (++)* Ascendancy (+) Original thinking (+) Personal relations (+)
Student involvement		Vigor (++) Original thinking (+) Personal relations (+)
Teacher support	Sociability (++)	Vigor (++) Sociability (+) Original thinking (+) Personal relations (+)
Negative affect	Sociability (--)	Vigor (--) Original thinking (-) Personal relations (-)
Teacher control		Vigor (+)

The sign in parentheses indicates the direction of the correlation.

(+) or (-) Personality variable 1 had a significantly higher correlation with classroom behavior than did personality variable 2.

(++) or (--) Personality variables 1 and 2 were both correlated significantly with classroom behavior, and the r's did not differ significantly from each other.

(++)* Personality variables 1 and 2 were both correlated significantly with classroom behavior, but the correlation for 1 was significantly higher than the correlation for 2.

Implications of Comparisons

Considering the results of the foregoing comparisons, it is apparent that students' perceptions of teacher-student behavior in the classroom were more closely related to their perceptions of the teachers' personality traits than to the teachers' self-descriptions of these traits. The exception to this trend involved the trait of vigor. Both students' and teachers' descriptions of that trait correlated significantly with all five dimensions of classroom behavior. Furthermore, vigor was the only trait that had any significant differential relationship to teacher control. Thus, the possession of a high degree of energy, the ability to work rapidly and accomplish a great deal, would appear to be an especially important personality variable to consider in its relationship to students' perceptions of teacher and student behavior in the college classroom.

A personality trait that had a particularly interesting differential relationship to teacher skill was ascendancy. Of all the dimensions of classroom behavior that were measured, skill probably comes closest to what most teachers think of when they talk about the teacher's "effectiveness." It is important, therefore, to note that skill was more highly correlated with students' perceptions of ascendancy in their teachers than with the teachers' self-descriptions of that trait.

The traits of original thinking, and trust and patience in personal relations, also appear to be especially important in their relationship to classroom behavior; except for the dimension of teacher control, students' perceptions of these traits in their teachers were correlated significantly with all the factors of classroom behavior involved in the study.

Although in general one might expect that judgments which emanate from the same source are likely to be more closely related than judgments which come from different sources, the closer relationship of classroom behavior to students' perceptions of teacher traits would seem to be more than merely an artifact. After all, when students are asked to describe their teachers' personality traits, they must do so largely within the circumscribed context of the teacher's role in the classroom; but when teachers are asked to describe their traits, they are more likely to respond within a larger context, taking into consideration their professional, social and personal life outside the classroom as well as their role within it. These inferences are consistent with the actual correlations obtained between students' perceptions of teachers' traits and teachers' perceptions of their own traits (Table 7). Of the eight correlations, only two were significantly greater than zero and both were relatively low: .37 for personal relations and .32 for vigor.

It would appear, then, that future research questions concerning personality correlates of classroom behavior should include asking teachers to specify their personality traits as they perceive them in their classroom role, as they perceive them outside of class, and how they think students perceive them. Furthermore, students could also be asked to specify their own personality traits as they perceive them within and without the classroom, and as they think the teacher perceives them. Such differences in perceptions could then be examined to see if they show differential relationships to classroom behavior.

It is also interesting to note that students' ratings of classroom behavior were more closely related to their perceptions of the teachers' personality traits than to their own self-description of these traits. For example, the teachers' skill in communication was correlated positively with students' perceptions of the teachers' ascendancy (assertiveness and self-assurance) and emotional stability, and these relationships were significantly higher than were the correlations between skill and students' self-perceptions of those traits; in fact, the latter two correlations were practically zero. These findings can help refute an argument sometimes voiced by college teachers that students' ratings of teaching effectiveness are of doubtful validity and usefulness since they may be easily distorted by the vagaries of students' personality traits.

The results of these comparisons also have implications for the professional training of graduate students who are engaged as teaching assistants, and especially for those who expect to make a career of college teaching. Since a number of teacher personality traits, as perceived by students, seem to be related in a variety of ways to teacher and student behavior in the college classroom, educators should find this information useful in their efforts to help graduate students become effective classroom teachers. Such efforts could include helping these teachers-in-training become more aware of how their personality traits are perceived by students, and how this awareness might lead them to modify or capitalize on those personality traits which are most meaningfully related to students' perceptions of skillful teaching and other important aspects of teacher-student behavior in the classroom. These training procedures might well include the use of "sensitivity training" or "encounter groups." (For an interesting account of how a sociology professor found such methods helpful in improving his teaching, see Richard, 1971-72).

In a similar fashion, these findings concerning personality correlates of classroom behavior should also be useful to the relatively young and inexperienced teachers already in the field, many of whom are only a few years removed from the graduate students who participated in this study. Whether they would be as true for older, better established teachers is more conjectural; in any case, future investigations are in order to determine whether the personality correlates revealed in the present study might also hold for more experienced teachers.

Preferred Teacher Traits and their Disconfirmation

Various theories of cognitive consistency have indicated that disconfirmation of critical expectations represents an aversive situation. The final question in this study stemmed from such theories but took a different direction, asking whether disconfirmation of student preferences for teacher personality traits would lead to aversive reactions, as reflected in student ratings of classroom behavior. More specifically it was predicted that the greater the discrepancies between students' initial preferences for teacher traits and their later observations of these traits, the less favorably they would rate their teachers' skill in communication, and the greater the negative affect they would observe in the classroom. The prediction was supported for the traits of original thinking, vigor, and personal relations -- most strongly for the relationship between skill and discrepancies in original thinking, and least strongly for the relationship between negative affect and discrepancies in vigor. The prediction was not supported for cautiousness. (It is interesting to note that throughout the study neither students' nor teachers' perceptions of this trait showed any significant relationship to classroom behavior).

It will be recalled that students' descriptions of teachers indicated that the latter were significantly less patient, tolerant, and trusting in their personal relation, less vigorous, and showed less original thinking than students had preferred. Although it is unrealistic to expect that teachers would always wish to satisfy such preferences, the findings presented here at least suggest possible directions that teachers may take to reduce the aversive reactions that seem to occur when students' preferences for such teacher traits are not fulfilled.

Generalization of Findings

The findings of this study were based on graduate teaching assistants and their students, and involved the discussion sections of introductory courses in the social-behavioral sciences at a large state university. The students represented a broad spectrum of the student population on that campus, while the teachers were typical of the graduate teaching assistants employed in such courses, many of whom in a few years would be joining college and university faculties on a full-time basis. Although statistically speaking the results of this project should not be generalized directly to teaching assistants and students outside of the immediate campus population they were drawn from, they are probably not so different from the many graduate teaching assistants and their students at other large colleges and universities, at least in the midwest, and probably in many

other areas of the country as well. On logical grounds, therefore, it seems reasonable to infer that the findings and conclusions of this study, as previously discussed, might well apply not only to the particular institutional setting that was examined, but also to a large number of similar institutions where social-behavioral science courses include the kind of discussion section format employed in the courses included here. Furthermore, as indicated earlier, these findings should be useful not only to teaching assistants in their present work and to educators responsible for their training, but also helpful to relatively young and inexperienced teachers now in the field.

Related Work in Progress

The investigator is now engaged in a project designed to broaden the scope of the questions asked in the study reported here.¹ Data are now being collected in discussion sections of courses in the social-behavioral sciences that will enable the investigator to compare men and women teachers by combining the information reported here with the new data. In the study just completed the number of women teachers was insufficient to permit valid comparisons. Although the data for men and women students could have been analyzed separately, it is more desirable to do this by means of a four-fold classification that includes men and women teachers.

Results of the new project will also facilitate cross-validation of the findings just reported. This is an especially important aspect; as Nathaniel Smith (1970) has emphasized, "A survey of the psychological literature reveals that psychologists have paid only a limited amount of attention to 'an elemental principle of competent research,' namely the replication or cross-validation study." (p. 970).

¹Supported by Research Board, Graduate College, University of Illinois.

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APPENDIX

Briefing Information. Beginning of First and Second Semester.

Adapted Directions for Gordon Personal Profile.
Students and Teachers - Beginning of First Semester.

Briefing Information. End of First and Second Semester.

Costin Survey of Classroom Behavior. Skill Factor from
Michigan Rating Form.

Adapted Directions for Gordon Personal Profile. End
of First Semester.

Adapted Directions for Gordon Personal Inventory.
Beginning of Second Semester.

Adapted Directions for Gordon Personal Inventory.
Teachers - Beginning of Second Semester.

Adapted Directions for Gordon Personal Inventory. End
of Second Semester.

Briefing Information

Beginning of First and Second Semester

TO: THE STUDENT

FROM: Frank Costin, Professor of Psychology, University of Illinois

I am asking you to cooperate in a survey being carried out in social-behavioral science courses on this campus. The purpose of the survey is to discover how personality traits are related to teacher and student behavior in the college classroom.

The results will be used to test a theory of personality and social interaction, and to provide information which can help improve college teaching.

I am not asking for your name. However, since I need to connect what you say today with what you report later, I am asking you to use a CODE NAME - one that you will always remember, but which will protect your identity.

You can also use this CODE NAME to find out the meaning of your responses after the project is completed. Call on me in Room 731, Psychology Building, and I will tell you how.

NOW - Please PRINT your CODE NAME below, and also record certain other non-identifying information that will help me analyze your responses.

Your CODE NAME (Print) _____

Your sex (Circle one) M F

Your class year (Circle one) Fr. Soph. Jr. Sr. Unclassified

Name and number of this course _____

Name of discussion section teacher _____

Section number _____ Day and time section meets _____

NOW TURN THE PAGE AND BEGIN. You may use pencil or pen on any part of the survey.

Adapted Directions for Gordon Personal Profile
Students and Teachers - Beginning of First Semester

On the next page are a number of descriptions of personal characteristics. These descriptions are grouped in sets of four. You are to examine each set and find the one characteristic that is MOST LIKE you. Then make a solid black mark between the pair of dotted lines following that statement, in the column headed M (Most).

Next examine the other three statements in the set and find the one characteristic that is LEAST LIKE you; then make a solid black mark between the pair of dotted lines following that statement, in the column headed L (Least). Do not make any marks following the two remaining statements.

		M	L
Here is a sample set:	has an excellent appetite.....	:: • ::	:: :: ::
	gets sick very often.....	:: :: ::	:: • ::
	follows a well-balanced diet.....	:: :: ::	:: :: ::
	doesn't get enough exercise.....	:: :: ::	:: :: ::

Suppose that you have read the four descriptive statements in the sample and have decided that, although several of the statements may apply to you to some degree, "has an excellent appetite" is more like you than any of the others. You would fill in the space following that statement in the column headed M (Most), as shown in the sample.

You would then examine the other three statements to decide which one is least like you. Suppose that "gets sick very often" is less like you than the other two. You would fill in the space following that statement in the column headed L (Least) as shown in the sample above.

For every set you should have one and only one mark in the M (Most) column, and one and only one mark in the L (Least) column. There should be no marks following two of the statements.

In some cases it may be difficult to decide which statement you should mark. Make the best decisions you can. There are no right or wrong answers.

NOW GO TO THE NEXT PAGE AND BEGIN.....

Briefing Information

End of First and Second Semester

TO: THE STUDENT

FROM: Frank Costin, Professor of Psychology, University of Illinois

I am asking you to cooperate once more in a survey being carried out in social-behavioral science courses on this campus. As you may recall, the purpose of the survey is to discover how personality traits are related to teacher and student behavior in the college classroom.

The results will be used to test a theory of personality and social interaction, and to provide information which can help improve college teaching.

I am not asking for your name. However, since I need to connect what you said earlier with what you report today, I am asking you to use the same CODE NAME that you used previously.

You can also use this CODE NAME to find out the meaning of your responses. Call on me in Room 731, Psychology Building, and I will tell you how.

NOW - Please PRINT your CODE NAME below, and also record certain other non-identifying information that will help me analyze your responses.

Your CODE NAME (Print) _____

Your sex (Circle one) M F

Your class (Circle one) Fr. Soph. Jr. Sr. Unclassified

Name and number of this course _____

Name of discussion section instructor _____

Section number _____ Day and time section meets _____

NOW TURN THE PAGE AND BEGIN. You may use pencil or pen on any part of the survey.

Costin Survey of Classroom Behavior and
Skill Factor from Michigan Rating Form

End of First and Second Semester

Items 1 - 24 refer to behavior in your discussion section classroom - the behavior of students and the teacher. Blacken the letter (A, B, C, D, or E) to indicate how frequently the behavior occurred. Answer according to this code:

- A. Almost always occurred
- B. Occurred often
- C. Occurred occasionally
- D. Did not usually occur
- E. Almost never occurred

-
- | | | | | | | |
|-----|--|---|---|---|---|---|
| 1. | The teacher defined the objectives of discussion. | A | B | C | D | E |
| 2. | Students failed to laugh, joke, smile, or show other signs of humor. | A | B | C | D | E |
| 3. | The teacher corrected or rejected students' statements without further discussion. | A | B | C | D | E |
| 4. | Direction of discussion was controlled by the teacher. | A | B | C | D | E |
| 5. | The teacher put material across in an interesting way. | A | B | C | D | E |
| 6. | Students volunteered knowledge, opinions or personal experiences. | A | B | C | D | E |
| 7. | The teacher made it clear that students would have little choice in how their achievements would be evaluated. | A | B | C | D | E |
| 8. | The teacher encouraged discussion of students' erroneous statements as a way of correcting them. | A | B | C | D | E |
| 9. | The teacher defined the content of discussion. | A | B | C | D | E |
| 10. | The teacher stimulated the intellectual curiosity of students. | A | B | C | D | E |

- | | |
|--|-----------|
| 11. Students interacted with each other. | A B C D E |
| 12. The teacher asked students to help determine content of discussion. | A B C D E |
| 13. The teacher asked specific, drill-type questions. | A B C D E |
| 14. There was interaction between students and teacher. | A B C D E |
| 15. The teacher explained clearly and explanations were to the point. | A B C D E |
| 16. Students talked more than the teacher. | A B C D E |
| 17. The teacher asked students to help determine objectives of discussion. | A B C D E |
| 18. The teacher praised student behavior. | A B C D E |
| 19. The teacher encouraged students to express knowledge, opinions, or personal experiences. | A B C D E |
| 20. The teacher was skillful in observing student reactions. | A B C D E |
| 21. The teacher asked students to help determine how their achievement would be evaluated. | A B C D E |
| 22. Students failed to ask teacher for information opinions, or personal experiences. | A B C D E |
| 23. The teacher asked open-ended questions. | A B C D E |
| 24. Direction of discussion was controlled by the students. | A B C D E |

-
25. How would you rate your teacher in general (all-around) teaching ability? Blacken A, B, C, D, or E.

- A. An outstanding and stimulating instructor.
- B. A very good instructor.
- C. A good instructor.
- D. An adequate, but not stimulating instructor.
- E. A poor and inadequate instructor.

Adapted Directions for Gordon Personal Profile

End of First Semester

On the next page are a number of descriptions of personal characteristics of people. These descriptions are grouped in sets of four. You are to examine each set and find the one description that is most like your discussion section teacher. Then make a solid black mark between the pair of dotted lines following that statement, in the column headed M (Most).

Next examine the other three statements in the set and find the one description that is least like your discussion teacher. Then make a solid black mark between the pair of dotted lines following the statement, in the column headed L (Least). Do not make any marks following the two remaining statements.

		M	L
Here is a sample set:	Is well dressed.....	::	::
	Tolerant of other people's opinion.	::	✕
	Has a cheerful disposition.....	::	::
	Loses temper easily.....	✕	::

Suppose that you have read the four descriptive statements in the sample and have decided that, although several of the statements may apply to your discussion section teacher to some degree, "loses temper easily" is more like him than any of the others. You would fill in the space following that statement in the column headed M (Most), as shown in the sample.

You would then examine the other three statements to decide which one is least like the teacher. Suppose that "tolerant of other people's opinions" is less like him than the other two. You would fill in the space following that statement in the column headed L (Least), as shown in the sample above.

For every set you should have one and only one mark in the M (Most) column, and one and only one mark in the L (Least) column. There should be no marks following two of the statements.

In some cases it may be difficult to decide which statements you should mark. Make the best decisions you can. Remember, this is not a test; there are no right or wrong answers. You are to mark certain statements in the way in which they most nearly apply to your instructor. Be sure to mark one statement as being most like the teacher and one being least like the teacher, leaving two statements unmarked. Do this for every set. Turn the sheet over and begin.

Adapted Directions for Gordon Personal Inventory

Beginning of Second Semester

On the next page are a number of descriptions of personal characteristics. These descriptions are grouped in sets of four. Examine each set and find the one characteristic in that set that you would MOST LIKE to see in your discussion section teacher. Then make a solid black mark between the pair of dotted lines following that statement, in the column headed M (Most).

Next examine the other three statements in the set and find the one characteristic that you would LEAST LIKE to see in your discussion section teacher. Then make a solid black mark between the pair of dotted lines following the statement in the column headed L (Least). Do not make any marks following the two remaining statements.

Here is a sample set:

Is well dressed.....	::	::
Tolerant of other people's opinions.	X	::
Has a cheerful disposition.....	::	::
Loses temper easily.....	::	X

Suppose that you have read the four descriptive statements in the sample and have decided that, although several of the statements may describe your preference to some degree, "Tolerant of other people's opinions" is most like your preference than any of the others. You would fill in the space following that statement in the column headed M (Most), as shown in the sample.

You would then examine the other three statements to decide which one is least like your preference. Suppose that "Loses temper easily" is least like your preference than the other two. You would fill in the space following that statement in the column headed L (Least), as shown in the sample above.

For every set you should have one and only one mark in the M (Most) column, and one and only one mark in the L (Least) column. There should be no marks following two of the statements.

In some cases it may be difficult to decide which statement you should mark. Make the best decisions you can. There are no right or wrong answers.

NOW GO TO THE NEXT PAGE AND BEGIN. You may use pencil or pen to mark your answers.

Adapted Directions for Gordon Personal Inventory

Teachers - Beginning of Second Semester

On the next page are a number of descriptions of personal characteristics. These descriptions are grouped in sets of four. You are to examine each set and find the one characteristic that is MOST LIKE you. Then make a solid black mark between the pair of dotted lines following that statement, in the column headed M (Most).

Next examine the other three statements in the set and find the one characteristic that is LEAST LIKE you; then make a solid black mark between the pair of dotted lines following that statement, in the column headed L (Least). Do not make any marks following the two remaining statements.

		M	L
Here is a sample set:	prefers to get up early in the morning.	::	✖
	doesn't care for popular music.....	::	::
	has an excellent command of English....	::	::
	obtains a poorly balanced diet.....	✖	::

Suppose that you have read the four descriptive statements in the sample and have decided that, although several of the statements may apply to you to some degree, "Obtains a poorly balanced diet" is more like you than any of the others. You would fill in the space following that statement in the column headed M (Most), as shown in the sample.

You would then examine the other three statements to decide which one is least like you. Suppose that "Prefers to get up early in the morning" is less like you than the other two. You would fill in the space following that statement in the column headed L (Least) as shown in the sample above.

For every set you should have one and only one mark in the M (Most) column, and one and only one mark in the L (Least) column. There should be no marks following two of the statements.

In some cases it may be difficult to decide which statement you should mark. Make the best decisions you can. There are no right or wrong answers.

NOW GO TO THE NEXT PAGE AND BEGIN.....

Adapted Directions for Gordon Personal Inventory

End of Second Semester

On the next page are a number of descriptions of personal characteristics. These descriptions are grouped in sets of four. You are to examine each set and find the one characteristic that is MOST LIKE your discussion section teacher. Then make a solid black mark between the pair of dotted lines following that statement, in the column headed M (Most).

Next examine the other three statements in the set and find the one characteristic that is LEAST LIKE your discussion section teacher; then make a solid black mark between the pair of dotted lines following that statement, in the column headed L (Least). Do not make any marks following the two remaining statements.

Here is a sample set:

has an excellent appetite.....	⦿	::
gets sick very often.....	::	⦿
follows a well-balanced diet.....	::	::
doesn't get enough exercise.....	::	::

Suppose that you have read the four descriptive statements in the sample and have decided that, although several of the statements may apply to your discussion section teacher to some degree, "has an excellent appetite" is more like your teacher than any of the others. You would fill in the space following that statement in the column headed M (Most), as shown in the sample.

You would then examine the other three statements to decide which one is least like your discussion teacher. Suppose that "gets sick very often" is less like your teacher than the other two. You would fill in the space following that statement in the column headed L (Least) as shown in the sample above.

For every set you should have one and only one mark in the M (Most) column, and one and only one mark in the L (Least) column. There should be no marks following two of the statements.

In some cases it may be difficult to decide which statement you should mark. Make the best decision you can. There are no right or wrong answers.

NOW GO TO THE NEXT PAGE AND BEGIN.....